

SECTION 408 PRIME COAT

408.01. DESCRIPTION.

This work shall consist of preparing and treating an existing surface with bituminous material, and blotter material if required, in accordance with these Specifications and in reasonably close conformity with the lines shown on the Plans or established by the Engineer.

408.02. MATERIALS.

Materials shall meet the requirements specified in the following Subsections of Section 700-Materials:

Prime Material MC-30 or MC-70	708.03
Blotter material, (if required)	402.04(j)

408.03. EQUIPMENT.

Distributors, heating equipment, and supply tanks shall meet the requirements of Subsection 401.03.

408.04. CONSTRUCTION METHODS.

- (a) **Weather Limitations.** Do not apply bituminous material when the ambient temperature is below 50°F (10° C) or when weather conditions would otherwise prevent the proper construction of the prime coat. Ambient temperatures shall be measured in the shade, 4 feet (1.2m) above the ground, and away from artificial heat source.
- (b) **Preparation of Surface.** Before priming, clean the subgrade, subbase, or base of loose material, making certain that it is in satisfactory condition to obtain maximum penetration of the prime.
- (c) **Priming Subgrades, Subbases, or Bases That Are Non-Cohesive.** Subject to the acceptance by the Engineer, when friable or non-cohesive materials are encountered in the surface to be primed, the bituminous material shown on the Plans may be changed to an asphalt emulsion. The bituminous materials shown on the Plans may also be changed to an asphalt emulsion in those areas of the State in which the use of cutback asphalt is prohibited. Sprinkling water with asphalt emulsion added may be used in the final operations of sprinkling, manipulation, shaping, and rolling of the subgrade, subbase, or base. Additional applications may be made if necessary to form a firm, bonded working table.
- (d) **Application of Bituminous Material.** Apply bituminous material to the width of the section to be primed by means of a pressure distributor and in a uniform, continuous spread at the approximate rate of 0.1 to 0.4 gallons per square yard (0.45 to 1.8 L/m²) as directed by the Engineer. When traffic is maintained, do not treat more than 1/2 of the width of the sections in one application. Take care that the application of bituminous material at the junctions of spreads is not in excess of the specified amount. Remove any excess bituminous material from the surface.

NOTE: Skipped areas or deficiencies shall be corrected at the Contractor's expense.

When traffic is to be maintained, permit one-way traffic on the untreated portion of the roadbed. As soon as the bituminous material has been absorbed by the surface and will not pick up, transfer traffic to the treated portion, and prime the remaining width of the section.

Do not apply succeeding applications of bituminous materials or other courses until after sufficient time has elapsed to allow both proper penetration and hardening of the prime coat.

- (e) **Application of Blotter Material.** If, after the application of the prime coat, the bituminous material fails to penetrate within the time specified and the roadway must be used by traffic, blotter material shall be spread in the amounts required to absorb any excess bituminous material.

408.05. METHOD OF MEASUREMENT.

Prime coat will be measured by the gallon (liter) of residual asphalt. Blotter material will not be measured for payment.

408.06. BASIS OF PAYMENT.

The accepted quantities, measured as provided above, will be paid for at the contract unit price as follows:

PRIME COAT GALLON (LITER)

Such payment shall be full compensation for furnishing all materials, equipment, labor, and incidentals to complete the work as specified.

SECTION 410 MICRO SURFACING

410.01. DESCRIPTION.

This work shall consist of the application of micro surfacing material to an existing pavement surface in lifts 1 inch (25 mm) thick or less. The micro surfacing shall be a mixture of polymer-modified emulsified asphalt, mineral aggregate, mineral filler, water, and other additives—all properly proportioned, mixed, and spread on the surface in accordance with the plans and specifications.

410.02. MATERIALS.

Materials shall meet the requirements of Section 707.

410.03. EQUIPMENT.

The material shall be mixed by a self-propelled Micro Surfacing machine which shall be a continuous-flow mixing unit; this unit shall accurately deliver and proportion the aggregate, emulsified asphalt, mineral filler, and water to a revolving multi-blade mixer, and then discharge the thoroughly-mixed product on a continuous-flow basis. The machine shall have sufficient storage capacity for aggregate, emulsified asphalt, mineral filler, and water to maintain an adequate supply to the proportioning devices. The machine shall also be equipped with self-loading devices which provide for the loading of all materials while continuing to lay Micro Surfacing, thereby eliminating unnecessary construction joints. The machine shall be equipped with opposite side driving stations to optimize longitudinal alignment. The machine shall be equipped to allow the mix operator to have full hydrostatic control of the forward